



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,075	04/18/2002	David John Hall	GIL 1011 PUS	3442

7590 12/05/2003

John A Artz
Suite 250
28333 Telegraph Road
Southfield, MI 48034

EXAMINER

LUK, EMMANUEL S

ART UNIT	PAPER NUMBER
1722	

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/018,075	HALL, DAVID JOHN	
	Examiner	Art Unit	
	Emmanuel S. Luk	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 13-24 is/are rejected.
- 7) ☒ Claim(s) 5-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 5-12 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Double Patenting

2. Applicant is advised that should claims 1-4 be found allowable, claims 13-16 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 1722

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1, 13, 18-22 and 24 are rejected under 35 U.S.C. 103(a) as being patentable over Berdan (5511967).

Berdan teaches the claimed apparatus having a body member (30) that is mounted into a mold having a mold cavity (22), a sleeve member (67) for sliding movement in the bore, an inner valve member (70) having a port open position, means for moving (76,78) the inner valve member, means for moving (Fig. 2) the body member. The wall of the sleeve being tapered in slightly (74) from the outside to allow for seating for the inner valve member (Fig. 4). The gap between the sleeve member and the body member allows for sliding motion and thus gas can flow between this gap, additionally, Berdan further shows the gap extends past the plates (86a), and thus it can be connected to the atmosphere (Fig. 6).

Berdan fails to teach means to move the sleeve member and threads, brackets and bolts for mounting the nozzle to the mold and groove.

Berdan teaches the body member is moved via plates (Fig. 2) thereby reducing the need for the sleeve member to move. However, in relation to the body member, the sleeve member is moving into an extended position in the mold cavity and a closed position. It would have been obvious to one of ordinary skill in the art to modify the moving plates to the lower plates (12) instead of (28) would have a similar effect of having the sleeve moving into the extended position of the mold cavity.

In regards to claims 18 and 19, the mounting elements are well known in the molding arts, and Berdan teaches bolts utilizing threads to secure the sleeve and inner valve members to the plate (Fig. 2), thus it would have been obvious to one of ordinary skill in the art to further modify Berdan with securing elements to mount the nozzle to the mold.

6. Claims 2-4 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berdan (5511967) as applied to claims 1, 13, 18-22 and 24 above, and further in view of Hayashi et al (5056997).

Berdan fails to teach an electric motor, a gear box, stall mode and nut and spindle.

Hayashi teaches "the piston is driven by an electric motor, and the torque of the electric motor is transmitted through a power transmitting device comprising feed nuts and screws" (Col. 2, lines 43-46). The features of the gear box, stall mode and nut and spindle are features of the electric motor, the stall mode itself is a function of the electric motor and the nut and spindle for connecting the motor is known in the driving arts to thereby allow for movement of the intend part to be driven by the electric motor. It would have been obvious to one of ordinary skill in the art to modify Berdan with an electric motor as taught by Hayashi to provide better control of the driving means.

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berdan (5511967) as applied to claims 1, 13, 18-22 and 24 above, and further in view of Shinohara Hidetoshi (JP 09076275).

Berdan fails to teach a groove between the reduced portion of the sleeve and body member.

Hidetoshi teaches a sleeve member (1) having a reduced portion (Fig. 1) and groove in the body member (5). The closed position allows for the venting of the cavity through to the groove (Fig. 2).

It would have been obvious to one of ordinary skill in the art to modify Berdan with the groove and reduced portion of the sleeve as taught by Hidetoshi because it allows for improved venting of the cavity in the closed position.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Becker, Baxi, Moldovanyi and Lambert.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Thursday 7 to 4 and alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on (703) 308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 10/018,075

Page 6

Art Unit: 1722

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

EL



W. L. WALKER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700